Traffic Records Assessment
On-Site Workbook

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NOTES AND DISCLAIMERS

NOTE: The terms "Highway Safety Information System" and "Traffic Records System" are interchangeable. This Traffic Records Assessment On-Site Workbook uses the term, "Traffic Records System" to be consistent not only with its traditional use, but also with the references in many publications and documents, as well as its use in various pieces of legislation.

NOTE: The term “crash” is used in lieu of the term “accident” in this document. Many of the references cited in this document use the term “accident” as do many of the laws defining crashes or accidents at the state level. This advisory recommends that states begin to use the term “crash” and to reflect that change in legislation.

TRAFFIC RECORDS ASSESSMENT
ON-SITE WORKBOOK

INTRODUCTION

The Traffic Records Assessment is a technical assistance tool that NHTSA and FHWA offer to state offices of highway safety to allow management to review the traffic records program. The purpose of the assessment is to document a state's traffic records activities as compared to the provisions in NHTSA's Highway Safety Program Advisory for Traffic Records, to note the state's traffic records strengths and accomplishments, and to offer suggestions where improvements can be made.

The Traffic Records Advisory establishes criteria to guide state development and use of its highway safety information resources. The Traffic Records Assessment is a process for giving the state a snapshot of its status relative to that Advisory. Consequently, this *On-Site Workbook* is based on that Advisory and is structured to enable the traffic records assessment team to solicit the information necessary to provide state highway safety officials with a report on their overall traffic records program.

General Instructions

The Advisory defines a level of functionality for a state's traffic records system and consists of four major sections: Types of Information, Information Quality & Accessibility, Uses of a Traffic Records System, and Management Initiatives. The assessment team will gather information to compare to the criteria contained in the Advisory's respective sections and document the results using the format in *Appendix A*. In doing so, the team will use the questions which follow in this *On-Site Workbook*. They are intended only as a guide to obtain the minimum information needed. They are not necessarily exhaustive and additional questioning of state participants is encouraged and expected in the course of the interviews. The questions generally follow the sequence of the *Advisory*. However, the questions for Sections 1 and 2 of this workbook are combined to facilitate the interview process, inasmuch as the same interviewee would in most cases respond to questions related to Section 1-A and 2-A (crash information), Section 1-B and 2-B (roadway information), etc.

Prior to each interview session, each team member is encouraged to review the questions for his/her assigned section(s) of the Final State Assessment Report to determine whether the interviewees may have information relevant to his/her assignment.

SECTIONS 1 AND 2:
INFORMATION COMPONENTS AND INFORMATION QUALITY

Section 1-A: Crash Information

Advisory excerpt

The Crash Component documents the time, location, environment, and characteristics (sequence of events, rollover, etc.) of a crash. Through links to the crash-involved segments of Roadway, Vehicle, and Driver Information, the Crash Component identifies the roadways, vehicles, and people involved in the crash and documents the consequences of the crash (fatalities, injuries, property damage, and violations charged). In addition to providing information on a particular crash, the Crash Component supports analysis of crashes in general and crashes within specific categories defined by person characteristics (e.g., age or gender), location characteristics (e.g., roadway type or specific intersections), vehicle characteristics (e.g., condition and legal status), and the interaction of various components (e.g., time of day, day of week, weather, driver actions, pedestrian actions).

The Crash Component of the Traffic Records System should contain some basic information about every reportable motor vehicle crash on any public roadway in the state. Details of various data elements to be collected are described in a number of publications. The Model Minimum Uniform Crash Criteria (MMUCC), for example, provides a guideline for a suggested minimum to be collected for each crash. Additional information should be collected (as necessary) for crashes involving an injury or fatality to meet the requirements for tracking and analysis for the state and other systems (e.g., the Fatality Analysis Reporting System ,FARS).

Section 2-A: Crash Information Quality

Advisory excerpt

- *Timeliness – the information should be available within a time frame to be currently meaningful for effective analysis of the state's crash experience.*

- *Consistency – the information should be consistent with nationally accepted and published guidelines and standards, for example:*

a. *Model Minimum Uniform Crash Criteria (MMUCC)*
b. *Manual on Classification of Motor Vehicle Traffic Accidents, 6th Edition, ANSI D16.1-1996*
c. *Data Element Dictionary for Traffic Records Systems, ANSI D20-1998*
d. *EMS Data Dictionary (Uniform Pre-Hospital Emergency Medical Services (EMS) Data Conference)*

Crash information should be consistent among reporting jurisdictions; i.e., the same reporting threshold should be used by all jurisdictions and the same set of core data elements should be reported by all jurisdictions.

- *Completeness – the information should be complete in terms of:*

  a. *All reportable crashes throughout the state are available for analysis*
  b. *All variables on the individual crash records are completed as appropriate.*

- *Accuracy – the state should employ quality control methods to ensure accurate and reliable information to describe both individual crashes and crash experience in the aggregate.*

- *Accessibility – the information should be readily and easily accessible to the principal users of the databases containing the crash information for both direct (automated) access and periodic outputs (standard reports) from the system.*

- *Data Integration – Crash information should be capable of linkage with other information sources and use common identifiers where possible and permitted by law.*

Sections 1-A and 2-A Questions

The following questions are intended to gather information to ascertain the state's status as compared to Sections 1-A and 2-A of the *Highway Safety Program Advisory for Traffic Records Systems* and to complete the corresponding sections of the final report. The questions may be addressed to a variety of interviewees, including the crash file manager, enforcement representatives, and users. It is highly recommended that the interview schedule be reviewed in advance to determine which questions are to be addressed to which interviewees.

General Information

1. Is there a statutory requirement to report crashes?

2. What agency has responsibility for maintenance of the official statewide crash file?

3. Describe the flow of data (a) from the crash event, (b) through the completion of the police report, (c) through the review by the reporting agency, and (d) through the data entry process. Does this vary between state police and local police? Are changes in this process being considered (e.g., automated data entry)?

4. What types of technology are used for crash data collection; e.g., PC's, GPS technology, CDPD, RF Linkage, Magnetic stripe, Bar Code, Voice Data Capture, GIS, etc.? Look at the proposed system architecture.

5. What is the crash file structure? When was last time the file structure was modified? How difficult is it to make changes to crash records system? Are changes being considered to the file structure?

6. When was the crash report form last revised? Is another revision being considered? When? What is the process for deciding what changes are to be made? Is there a committee of users, such as a statewide traffic records coordinating committee, involved in the process?

Data Content

7. What location method is used? Is the location entered by the investigating officer, or via automated means during file creation at data entry? Is the same location reference method used for crashes on all highways of the state and by all investigating agencies? Is the state developing a linear referencing system?

8. Are the crashes classified according to First Harmful Event and do all investigating agencies classify crashes appropriately? Are crashes classified using ANSI D16.1 and MMUCC (i.e., first harmful event, school bus, work zone, occupant protection, non-motor vehicle crashes, etc.)?

9. What is the reporting threshold for the state? Do all local agencies follow the state threshold?

10. Are there provisions to record work zone crashes on the crash report?

11. Is there a separate crash data collection for commercial motor vehicles?

12. Does the state collect data on type of occupant protection used and is it collected for all vehicle occupants? Is seating position noted for all occupants whether injured or not?

13. Does the officer indicate types of violations and citations issued on the crash report?

14. Does the officer indicate whether alcohol or drugs are suspected? Is BAC entered into the crash file when obtained?

15. Does the state capture information regarding the EMS agency responding to the crash; such as, the agency identifier, the EMS run number and the medical facility to which the victim was transported?

NOTE: Interview team should obtain a copy of the crash report and instruction manual in advance of the on-site interviews and compare the elements collected to the *Model Minimum Uniform Crash Criteria* published by NHTSA, FHWA and NAGHSR. Determine if the data elements can be mapped to the Guideline and if they are adequate for tracking and analysis in other systems such as SAFETYNET, FARS, etc.

Data Output

16. What are the outputs from the crash file, both periodic and ad-hoc? Who uses them? How are they produced and/or accessed? Are the data or reporting function Internet accessible?

17. To what extent are merged files produced and for what purposes? Road traffic volume with crash? Roadway inventory with crash? Roadway characteristics with crash? Traffic control with crash? Enforcement with crash? EMS with crash?

Data Quality

18. What is the elapsed time from the time of a crash to its entry into the statewide crash file? Is there a mandated time period for submitting reports? Does this vary among jurisdictions? How soon after year's end is a complete data available for statistical analysis and other reporting?

19. Does the state require all crashes to be reported on a uniform crash report form, or specify a uniform set of data elements to be collected? If so, do all agencies comply? Does the state use a separate form for commercial motor vehicles?

20. What is the reporting threshold? Are all reporting jurisdictions using the same threshold?

21. What national guidelines and standards does the state use in capturing and classifying crash data (e.g., MMUCC, D-16.1)?

22. What localities maintain their own crash files? Do they submit an automated copy of their file for updating the statewide file or do they submit the paper reports only? What are the major differences in terms of reporting threshold used, variables reported, editing performed, and how the data are accessed and used?

23. Are other crash files maintained elsewhere in the state; e.g., another state agency, local systems, etc.? If other crash files exist, are they created via duplicate data entry processes from the original crash report form? Do the data editing procedures differ? Is there a process in place to upload from any of these independently maintained files to create the statewide file?

24. Does the statewide crash file contain all reportable crashes from all jurisdictions?

25. Are all entries on the crash report completed? What variables are most often omitted? What variables are most often incorrectly entered?

26. Is the police crash report the primary source of data for the statewide crash file? If not, what is the primary source? Are data ever extracted from operator reports? From other sources: e.g., coroners, medical examiners, etc.? What are the sources of the crash data; i.e., other than the police report, are data extracted or merged from other records such as operator reports, medical examiner records (death certificates, toxicology reports), etc.?

27. Is there any procedure in place for monitoring incomplete or incorrect reporting and providing feedback to the reporting jurisdiction?

28. Do any of the enforcement agencies provide this feedback to the investigating officers? Do any of the enforcement agencies emphasize these common reporting problems in their crash investigation and reporting training? What type of crash reporting training is provided?

29. How are data accessed by the various users? Does the agency maintaining the statewide crash file provide users with direct access to the file or any means to extract data sets for analytical purposes? Generally describe the process for obtaining data with particular attention to its application for highway safety planning, highway improvement projects, law enforcement operations, and general analyses of the state's crash experience.

30. What are the legal constraints/concerns of providing direct access to crash information for all users?

31. What files are linked to the crash file?

    a. Medical outcome data files (EMS, emergency room admission and other hospital files)?
    b. Driver file (e.g., to merge data to analyze driver histories of crash involved drivers)? Is the driver history updated as an automated by-product from processing of the crash report?
    c. Roadway files, especially for analysis of high crash locations?
    d. Citation files?
    e. Any locally maintained systems?

32. What are the common linkage elements for any of these files? What linkage elements could be used to link the crash data with other information sources, with special emphasis on the following:

    1. Linkage to vehicle records; e.g., Plate or VIN?
    2. Linkage to driver records; e.g., driver license number, or some combination of date of birth, crash date and time, etc?
    3. Linkage to roadway files; e.g., roadway location identification?
    4. Linkage to citation files; e.g., ticket number, crash case identifier? D.L. number?
    5. Linkage to EMS and other medical outcome information sources; e.g., EMS run number, ID number for medical facility? Note if probabilistic methods are used to link crash and medical outcome data.

33. Does the state have a capability in place to electronically retrieve and merge pertinent data from the driver and/or vehicle files into the crash record, thus eliminating the need for the officer to record those data on the crash report; e.g., name, date of birth, vehicle make/model, etc.?

Sections 1-B: Roadway Information

Advisory excerpt

Roadway information includes roadway location, identification, and classification, as well as a description of a road's total physical characteristics and usage, which are tied to a location reference system. Linked safety and roadway information are valuable components in support of a state's construction and maintenance program development.

Roadway Information should be available for all public roads in the state whether under state or local jurisdiction. A location reference system should be used to link the various components of roadway information as well as other information sources (e.g., Crash/Environment information, EMS records) for analytic purposes.

Section 2-B: Roadway Information Quality

Advisory excerpt

- *Timeliness – the information should be updated as required to produce valid analysis. This implies that changes on the roadway (e.g., construction, signage improvements, etc.) are available for analysis as soon as the project is completed.*

- *Consistency – the same data elements should be collected over time and for various classes of roadways.*

- *Completeness – the information should be complete in terms of the miles of roadway, the trafficway characteristics, the highway structures, traffic volumes, traffic control devices, speeds, signage, etc.*

- *Accuracy – the state should employ methods for collecting and maintaining roadway data that produces accurate data and make use of current technologies designed for these purposes.*

- *Accessibility – the information should be readily and easily accessible to the principal users of the databases containing the roadway information for both direct (automated) access and periodic outputs (standard reports) from the files.*

- *Data Integration – In order to develop viable traffic safety policies and programs, the roadway information must be linked to other information files. Integration should also be supported between state and local systems.*

Sections 1-B and 2-B Questions

The following questions are intended to gather information to ascertain the state's status as compared to Sections 1-B and 2-B of the *Highway Safety Program Advisory for Traffic Records Systems* and to complete the corresponding sections of the final report. The questions will be primarily directed to representatives of the state's highway department participating in the assessment.

General

1. Is the traffic records system used to guide the development of short/long-range construction/maintenance programs? If so, how? If not, why not? What other ways could traffic records systems be used in construction programs?

2. Is there a specific program developed to correct suspect or problem locations identified through the traffic records system?

3. How are crash locations identified? What location referencing system is used?

4. Does the location referencing system cover all state-maintained roadways?

5. Does the location referencing system apply to other roadways that are not maintained by the state? If not, what other location referencing system is used?

6. How are roads classified?

7. Can the system classify roads as on the National Highway System or Non-NHS?

8. Can the system classify roads by functional class (as defined by FHWA)?

9. Does classification system include all public roads (state and non-state highways)?

Data Content

10. What inventory files are maintained (e.g., pavement, signs, traffic volumes, bridges, geometric, maintenance logs, roadside hardware, skid, etc.)?

11. What inventory data elements are collected? Specific data elements (e.g., in a pavement file -- paved-on date, pavement type, pavement friction tests (#, date), coverages. Provide examples?

12. Do video log files exist for the roadway system? Can they be linked to the inventory?

13. Are VMT data available and on what basis (e.g., vehicle type, roadways, etc.)? How are these data used?

Data Output

14. Can all roadway inventory files be linked? In what manner? What linking variables are used?

15. Which roadway files are linked together? How are they linked - does the state have a GIS?

16. Can state system and local system files be linked?

17. Has any statewide analysis based on file linkage resulted in specific programs for roadway improvements?

18. What output reports are produced? In what form (periodic, on-demand)? For whom?

Data Quality

19. How frequently are roadway inventory files updated when changes occur (new traffic signs/controls, redesigned features and characteristics, etc.)?

20. Are the data that are maintained similar among the various classes of highways in the state? Are data comparable from one year to the next, particularly for high crash location analysis?

21. Does the state maintain files only for the state-maintained roadways? Do localities maintain their own roadway files and are they linked to the state system?

22. What is the accuracy of the location referencing system within the various roadway inventory files (nearest .01 mile, other)?

23. Is the referencing system physically posted (i.e., milepost or reference markers)?

24. Are all the roadway inventory files maintained to the same accuracy?

25. How does the state rate the accuracy of the data collected: for state highways? for local streets and highways? What methods are employed for collecting data for updating the files?

26. How are data from the various files accessed? What periodic reports are produced?

27. How do the users generally rate the quality of the roadway data? What improvements would be desirable?

28. Can the roadway files be linked to the crash files? Any other files?

29. How is historical roadway data maintained? What methods are available for linking historical crash information with the appropriate historical roadway information?

Section 1-C: Vehicle Information

Advisory excerpt

Vehicle information includes information on the identification and ownership of vehicles registered in the state. Data should be available regarding vehicle make, model, model year, body type, and miles traveled, in order to support analyses of vehicle-related factors which may contribute to a state's crash experience. (NOTE: Such analysis would be necessarily restricted to crashes involving in-state registered vehicles only).
This information should also be available for commercial vehicles and carriers which may be registered in other states, but which are licensed to use the public roadways in this state.

Section 2-C: Vehicle Information Quality

Advisory excerpt

- *Timeliness – the information should be updated at least annually.*

- *Consistency – the same data elements should be collected over time and should be consistent with published practices and standards (state documents, MMUCC, others).*

- *Completeness – the information should be complete in terms of the vehicle ownership, registration, type, VIN, etc. Information on VMT by type or class of vehicle should be available.*

  For commercial vehicles, completeness also involves collection and availability of standard data elements (such as the NGA elements, a set of data developed and recommended by the National Governors Association for collection in crashes involving commercial vehicles).

- *Accuracy – the state should employ methods for collecting and maintaining vehicle data that produces accurate data and should make use of current technologies designed for these purposes.*

- *Accessibility – the information should be readily and easily accessible to the principal users of the databases containing the vehicle information for both direct (automated) access and periodic outputs (standard reports) from the system, within the parameters of confidentiality.*

- *Data Integration – Vehicle information should be capable of linkage with other information sources and use common identifiers where possible and permitted by*

law.

Sections 1-C and 2-C Questions

The following questions are intended to gather information to ascertain the state's status as compared to Sections 1-C and 2-C of the *Highway Safety Program Advisory for Traffic Records Systems* and to complete the corresponding sections of the final report. The questions will be primarily directed to motor vehicle department representatives involved in the state's motor vehicle registration and titling functions.

Data Content

1. Are data available for VIN, vehicle type and configuration, legal status and registration, and use characteristics for each vehicle registered in the state?

2. How are vehicle types classified and on what basis (e.g, use, weight, configuration, etc.) Are these same classifications used in crash reporting?

3. Does the state capture odometer readings; e.g., at time of registration renewal, inspection, or by some other means?

4. How and where is information on commercial vehicles maintained and integrated with other systems?

Data Output

5. Are summaries produced relative to the makeup of the state's vehicle population?

6. Can vehicle data be linked to crash data? Linked to other files? What is the linkage element(s)?

7. Can the state normalize crash experience with respect to type of vehicle? Can the state normalize crash experience by vehicle miles traveled by type of vehicle?

8. What use is made of the vehicle information beyond administration of the state's vehicle registration/titling functions? Is vehicle data used for any type of analysis? Are reports produced from the vehicle file containing summary information regarding the state's vehicle population?

9. Who uses vehicle file data other than those engaged in the routine vehicle activities of the state and how do they obtain the data? Do users have the ability to query and access vehicle data electronically?

10. What legal and policy restrictions apply to the use of vehicle registration data?

11. Is the information on the vehicle file linked with any other files? For what purposes: operational only? Statistical report production? What are the linkage elements?

Data Quality

12. How frequently is the vehicle registration data updated so that a database of all registered vehicles in the state is available? How is information on salvage vehicles obtained and recorded?

13. How often is information on temporary registrations and stolen vehicles updated?

14. What standards or guidelines are used in the classification and description of vehicles?

15 Does the vehicle file contain complete identifying data on registered vehicles; e.g., class, type, VIN, etc.?

16. What quality controls are in place? Does the state use any VIN conversion program to derive information from the VIN? Does the state use VIN software in the field to capture more accurate VIN data?

17. What technologies are used to capture vehicle information in the field by law enforcement; e.g., bar codes, scanning, etc.?

Section 1-D: Driver Information

Advisory excerpt

Driver information includes details about the state's population of licensed drivers; e.g., personal identification, driver license number, type of license, license status, driver restrictions, convictions for traffic violations, crash history, driver improvement or control actions, and driver education data. Driver information should also be maintained to accommodate information obtained through interaction with the National Driver Register (NDR) and the Commercial Driver License Information System (CDLIS) to enable the state to maintain complete driving histories and to prevent drivers from circumventing driver control actions and obtaining licenses from multiple states.

Section 2-D: Driver Information Quality

Advisory excerpt

- *Timeliness – routine license issuance information should be updated at least weekly. Adverse actions (license suspension, traffic conviction) should be posted daily.*

- *Consistency – information maintained on the state's driver file should be compatible for exchange with other driver related systems such as the National Driver Register (NDR), the Commercial Driver License Information System (CDLIS), and other applications for interstate exchange of driver records especially those facilitated via the American Association of Motor Vehicle Administrators Telecommunications Network (AAMVANet).*

- *Completeness – the information should be complete in terms of data elements (unique personal identifiers and descriptive data such as name, date of birth, gender, etc.) and complete in terms of all prior history, especially adverse actions received from other states either while licensed elsewhere or while driving in other states.*

- *Accuracy – the state should employ methods for collecting and maintaining driver information that produces accurate data, and should make use of current technologies designed for these purposes.*

- *Accessibility – the information should be readily and easily accessible to the principal users of the databases, including especially driver licensing personnel, law enforcement officers, the courts, and for general use in highway safety analysis. The information should be available electronically for individual record access, and technology should be available to support automated downloading of summary data sets for analytical purposes providing safeguards are in place to protect confidentiality within the guidelines established by the state.*

- *Data Integration – driver information should be capable of linkage with other information sources and use common identifiers where possible and permitted by law. Updates of driver information from courts should be accomplished through linkages, preferably electronic, to the driver history data.*

Sections 1-D and 2-D Questions

The following questions are intended to gather information to ascertain the state's status as compared to Sections 1-D and 2-D of the *Highway Safety Program Advisory for Traffic Records Systems* and to complete the corresponding sections of the final report. The questions will be primarily directed to interviewees involved in the state's driver licensing and control activities.

Data Content

1. Does the state maintain information necessary to administer its driver licensing and control activities (e.g., driver identification and descriptive information, convictions, license suspensions and revocations, and crashes)?

2. Does the state have a graduated licensing law? Are records on learners permits and provisional licenses maintained?

3. Are records from previous state of licensure obtained and incorporated when licensing new residents?

4. Is driver education information maintained in the driver record?

5. Are convictions received and entered from all courts and for all types of convictions?

6. Are crash involvements entered on the driver record? For all involvements or only upon issuance of a citation?

7. Do records on crash involvements and traffic convictions include BAC data? If so, is that entered?

8. Are notes of crash involvement or crash records entered manually or as an automated byproduct from creation of the crash file?

9. Can driver data be automatically updated from other data files (e.g., update driver address from crash or citation files; remove driver from file based on death listed on the state's vital statistics file?)

Data Output

10. Are data from the driver files used for purposes other than the administration of the state's driver licensing and control functions; e.g., statistical analyses to develop profiles of crash

involved driver?

11. How are driver data, if used, accessed or received? Do such users rely on periodic summaries produced from the files, receive summaries on a request basis, or are they able to access the files directly?

12. What legal and policy restrictions apply to the use of driver information?

13. Is there any linkage to other files; e.g., crash file, citation file, vehicle file, etc.? What are the linkage elements?

Data Quality

14. How soon after adjudication are adverse actions (license suspensions/revocations, traffic convictions, etc.) received from the adjudicating agency? How soon are they entered into the driver history record?

15. Does the adjudicated case include the original offense for which the citation was issued and, if so, is this entered into the driver history record?

16. Can any of the adjudicating agencies electronically transmit dispositions?

17. Can any of the adjudicating agencies electronically access the driver history file to retrieve a driver's history prior to sentencing?

18. Are law enforcement queries for license status processed against the most current version of the file?

19. Are the data on the driver file compatible for exchange with NDR and CDLIS?

20. Are the data compatible for interstate exchange via the AAMVANet, particularly the coding of traffic convictions and license status?

21. Do all adjudicating agencies submit all dispositions, or do they have discretionary authority to divert convictions from being entered on a driver's record; e.g., attending a driver improvement school or performing community service?

22. Does the state belong to the Driver Licensing Agreement (formerly the Driver License Compact and the Non-Resident Violators Compact)? Are out-of-state convictions for resident drivers posted? Are "Failure to Appear" notices from other states for resident drivers processed as if they occurred in state?

23. When licensing a new resident, are the adverse action records from the previous state of

licensure, if any, incorporated into the initial driver record?

24. Are records on non-resident and/or unlicensed drivers' convictions and suspensions created? Are juvenile offenses recorded?

25. Are all crash involvements posted regardless of whether a citation was issued?

26. What technologies are used to capture driver information in the field by law enforcement; e.g., bar codes, scanning, etc.?

27. How are records matched to ensure actions are posted to the correct driver record?

Section 1-E: Enforcement/Adjudication Information

Advisory excerpt

Information should be available which identifies arrest and conviction activity for the drivers in the state, including information which tracks a citation from the time of its distribution to an enforcement jurisdiction, through its issuance to an offender, and its ultimate disposition by a court. Information should be available to identify the type of violation, location, date and time, the enforcement agency, court of jurisdiction, and final disposition. This information is useful in determining the level of enforcement activity in the state, accounting and control of citation forms, and monitoring of court activity regarding the disposition of traffic cases.

Section 2-E: Enforcement/Adjudication Information Quality

Advisory excerpt

- *Timeliness - information from an issued citation should be recorded on a statewide citation file as soon as possible after issuance. Information regarding the disposition of a citation should be available for entry on the citation file as well as on the driver history record as soon as possible after judgment by the adjudicating agencies.*

- *Consistency - all jurisdictions should use a uniform traffic citation form and the information should be uniformly reported throughout all enforcement jurisdictions.*

- *Completeness - all citations issued should be recorded in a statewide citation file with all variables on the form completed, including the violation type; the issuing enforcement agency; violation location; a cross reference to a crash report, if*

applicable; BAC, where applicable; etc. The final disposition and the name of the adjudicating agency should be posted on the citation file. All dispositions should be forwarded for entry on the driver history record.

- *Accuracy - the state should employ accepted quality control methods to ensure accurate and reliable information is reported on the citation form and updates are made on the citation and driver history file.*

- *Accessibility - the information should be readily and easily accessible to the principal users, particularly:*

  a. Driver control personnel to take timely license sanction actions, when appropriate.

  b. Law enforcement personnel for operational analysis and resource allocation.

  c. Agencies with administrative oversight responsibilities related to the adjudicating agencies under its jurisdiction.

  d. Adjudicating agency officials to assess traffic case adjudication workload and activity.

- *Data Integration - citation information should be capable of linkage with other information sources, such as the crash and driver history data, and should use common identifiers where possible and permitted by law.*

Sections 1-E and 2-E Questions

The following questions are intended to gather information to ascertain the state's status as compared to *Sections 1-E and 2-E of the Highway Safety Program Advisory for Traffic Records Systems* and to complete the corresponding sections of the final report. They are focused principally on the existence of a statewide citation tracking system and/or the existence of information regarding citation activity and case dispositions on a statewide basis. The questions will be primarily directed to enforcement and court administration personnel.

Court Related Questions

1. Does the state have an administrative judicial oversight function vested in one of the state agencies (e.g., a state office of court administration)?

2. Is there a central record-keeping function which tracks each citation from its printing, to its distribution to an enforcement agency and an individual officer, to its issuance to an offender, and to its final disposition by an adjudicating agency?

3. Does the state have information to compare the violation for which a citation is issued to the violation for which the offender was eventually convicted? Do any adjudicating agencies maintain this information in a form that can be summarized?

4. Can statewide statistics be compiled on the total number of citations and/or convictions by type?

5. Can the state identify all adjudications by adjudicating agency?

6. Can the state identify all citations by police agency?

7. Do the adjudicating agencies forward notices of dispositions to the issuing enforcement agencies?

8. Are all convictions forwarded by all adjudicating agencies? Are some convictions withheld through certain discretionary powers of the adjudicating agencies (e.g., deferred adjudication)?Are all convictions and/or dispositions forwarded from all adjudicating agencies? Are some convictions withheld through certain discretionary powers of the agencies?

9. Do procedures exist for tracking pending citations through the court system?

10. How are citation and/or conviction data accessed by an adjudicating agency for routine use, e.g., to obtain driver history data prior to sentencing?

11. Are citation and/or conviction data used for statistical or analytical use? Where and how are they obtained?

12. Is there any quality control to assure that citations are acceptable within the adjudication system?

<u>Enforcement Related Questions</u>

13. Does the state require use of a uniform citation form by all enforcement agencies and jurisdictions? If so, are all agencies in compliance?

14. Do the state police or any of the local enforcement agencies maintain systems for control and tracking of citations?

15. Do these agencies receive notice of case disposition and is the disposition entered into the system? How soon after case disposition are disposition data received and entered?

16. Do any of these agencies compile statistics for internal use or for external distribution? Can information from these systems be aggregated to compile statewide statistics for citations and convictions?

17. Do these systems contain BAC data from DUI citations?

18. What technologies are used to capture citation and adjudication information in the field by law enforcement and adjudicating agencies?

19. Can the data from any state or local citation systems be linked to other data, especially crash data? What are the linkage elements?

Section 1-F: Injury Surveillance System Information

Advisory excerpt

With the growing interest in injury control programs within the traffic safety community, as well as the health and enforcement communities, there are a number of local, state and federal initiatives which drive the development of Injury Surveillance Systems (ISS). These systems typically incorporate pre-hospital (EMS), emergency department (ED), hospital admission/discharge, trauma registry, and long-term rehabilitation databases to track injury causes, magnitude, costs, and medical outcomes. These systems may rely upon other components of the traffic records system to provide information on injury mechanisms or events (e.g., traffic crash reports).

This ISS should allow the documentation of information which tracks magnitude, severity, and types of injuries sustained by persons in motor-vehicle related crashes. Although traffic crashes cause only a portion of the injuries within any population, they often represent one of the more significant causes of injuries in terms of frequency and cost to the community. The ISS should support integration of its data with police- reported traffic crashes, EMS run reports, and roadway attributes as a first critical step in the identification of a community's injury problem, and in turn, the identification of cost-effective countermeasures which can positively impact both the traffic safety and health communities.

The use of ISS data should be supported through the provision of technical resources to analyze and interpret these data for both the traditional traffic safety data relationships and the specific data relationships unique to the health care community. In turn the use of the ISS should be integrated into the injury control programs within the traffic and other safety-related programs at the state and local levels.

Section 2-F: Injury Surveillance System Information Quality

Advisory excerpt

- *Timeliness - Ideally, the medical data on an injury should be available within the ISS in the same time frame as the data on the event that created that injury is available elsewhere within the traffic records system (e.g., the entry of the crash record). The medical record on an individual may be incomplete initially because local protocols dictate that the medical record is only placed in the ISS when the patient leaves the health care system (e.g., at discharge). Every effort should be made to integrate the ISS record with the event data as soon as it does become available.*

- *Consistency - The reporting of EMS run data, hospital ED and admission data, trauma registry data, and long-term health care data should be in consistent formats throughout the state. Where state-level reporting and repository standards are not possible, consistent systems among local communities should be encouraged to support local injury control efforts. The ISS should follow national standards, such as the ICD-9-CM codes as published by the CDC for classification of external mechanisms of injury, the use of Injury Severity Scale standards, etc.*

- *Completeness - Although a trauma registry-based ISS can provide a valuable source of ISS information, it cannot provide a complete picture of the injuries within a community or state. Where possible, the ISS should represent a census of all injuries that are encountered within the community. The ISS should, where feasible, be maintained at a state level, but should, at a minimum, be operated at the local level.*

- *Accuracy - The state should provide local heath care providers with training and support in the accurate coding of injuries and should foster the proper use of the resulting ISS data through education of data users in the proper interpretation of these data.*

- *Accessibility - recognizing the issues of patient and institutional confidentiality, there should be mechanisms in place to balance the demands for data accessibility from end-users and the requirements of state and local privacy rules. Wherever possible, the traffic safety and injury control community should be provided with access to the data in, at a minimum, summarized reports designed to address specific needs, including injury type and severity cost data. Ideally the system should support the creation of "sanitized" extracts of the ISS data for use in research, problem identification, and program evaluation efforts.*

- *Linkage - the true power of the ISS is recognized when these data are integrated with other traffic records system data, such as traffic crash, roadway, and crime*

data; as well as, internally between EMS run reports, hospital / ED admission data, and discharge data. The ISS should be implemented in a fashion that supports this integration in as efficient a manner as possible. Often GIS systems provide the ideal platform for linkage and interpretation of the ISS and traditional traffic records system data. The use of common identifiers within the traditional traffic records system and ISS data systems will facilitate this integration effort. The ISS should be used regularly in a linked configuration to perform traffic safety analysis.

Sections 1-F and 2-F Questions

The following questions are intended to gather information to ascertain the state's status as compared to Sections 1-F and 2-F of the *Highway Safety Program Advisory for Traffic Records Systems* and to complete the corresponding sections of the final report. They are focused principally on the existence of pre-hospital (EMS), emergency department (ED), hospital admission/discharge, trauma registry, and long-term rehabilitation databases to track injury causes, magnitude, charges, and medical outcomes. The questions will be primarily directed to health department and other medical personnel.

General

1. Is there a statewide ISS in place?

2. If so, who administers it and under what type of mandate?

3. Are there local ISS's in place?

4. If so, what jurisdictions and under what leadership?

5. Are the state-level and local systems integrated?

6. Are there technical resources available to support these systems?

7. Is the ISS used by both the traffic safety and health communities?

8. Has the ISS been used to:

    a. identify populations at risk?
    b. determine costs of injuries?
    c. evaluate the impact of injury control programs?
    d. measure efficiency of EMS systems?
    e. respond to public policy issues?

9. Has the ISS been used for problem identification, countermeasure strategies, and program evaluation within the Safe Community Programs?

10. What components are included within the ISS;

    a. EMS Run reports?
    b. Hospital ED data?
    c. Hospital admissions?
    d. Hospital discharge data?
    e. Treatment costs?
    f. Long-term care data?
    g. Traffic crash events?
    h. Crime Events?

10. Is there a mechanism in place, such as an advisory group, which oversees state and local injury surveillance systems?

11. How is this group related or connected to the statewide traffic records coordinating committee and any safety management system (SMS) committee?

13. Does the ISS incorporate Insurance Industry data and representation?

Data Quality

14. What is the typical processing delay of ISS data for:

    a. EMS Run data?
    b. Hospital ED / Admission data?
    c. Hospital discharge data?
    d. Long-term rehabilitation data?

15. How does this compare to timeliness of traffic crash and crime data?

16. Does local/state EMS run data follow standards, such as an EMS Data Dictionary?

17. Are ICD-9-CM E-codes available for all hospital ER / admissions?

18. Is the Injury Severity Scale utilized?

19. Are there state standards for reporting these data?

20. Is there a census of all injuries available in the ISS, as opposed to a sample or only the more severe injuries (e.g., a trauma registry)?

21. Are data available for the entire state?

22. What trauma registries exist in the state? Do they report to the State and do they share data? What segment of the injuries do these registries represent?

23. Is there a system for training and certifying hospital coders in the use of ICD-9-CM?

24. Is there a system in place to train or assist the users in the use of the ISS data?

25. What quality control procedures are in place to assure the accuracy of information within the ISS?

26. What form of control is placed upon the reporting of ISS data?

27. What restrictions are placed upon the use and distribution of data?

28. What controls are in place to assure patient and institutional confidentiality?

29. Who governs the decisions relative to confidentiality? If there is a board or committee? Who sits on that group?

30. Are there provisions for providing custom, targeted reports and/or data extracts?

31. Is there a "public use" file and how is it accessed or obtained?

32. Has the state successfully linked or integrated the ISS data with traffic crash and/or crime data? What are some examples?

33. How is linked data used (applications, types of users, purposes)?

34. Are there common identifiers in the various sub-systems to facilitate linkage? What are these linkage variables?

35. If linkage has not been attempted to date, what steps have been taken, or are being taken, to facilitate future linkage efforts?

36. Is GIS technology being used to integrate injury data with exposure data (e.g., population density, socio-economic factors) or with roadway and traffic crash data?

37. Has ISS data, linked with other systems, been used by Safe Community programs to identify

injury problems, select countermeasures, or evaluate programs, countermeasures or medical outcomes? What are some examples of this use?

Section 1-G: Other Information

Advisory excerpt

The traffic records system should acknowledge the importance of, and incorporate where feasible, other types of information from the state and local level which may be useful to identify traffic safety problems and to evaluate countermeasures. These supporting components may include:

- *Geographic Information System (GIS) and Global Positioning System (GPS) data*
- *Insurance data (carrier, policy number, expiration date, claims cost)*
- *Safety Program Evaluation data*
- *Data specifically required by state or federal programs (e.g., TEA-21, Transportation Equity Act for the 21st Century)*
- *Demographic data (e.g., data on the state's population including gender, age, rural/urban residence, ethnicity, etc.) sufficient to be used in normalizing crash data to the state's general population*
- *Observational and survey data (e.g., occupant protection, attitudinal measures), other behavior data (e.g., speeding), and human factors data*

Inventory
Each state should have in place procedures that result in the compilation of an inventory of state and local information sources. This inventory should include, at a minimum, the ownership (contact agency/person), quality, and availability of the data from each information source.

Performance data
Performance level data, as part of a traffic records system, are those non-crash measures relating to an ongoing or proposed countermeasure that addresses a crash problem. They can include number and types of citations and convictions, number or percent of drivers and occupants using occupant protection, average Blood Alcohol Concentration (BAC) levels, average speeds, percent of injured receiving EMS response, recidivism rates for past offenders/crash-involved drivers, highway countermeasures (e.g., breakaway signs), etc.

Cost data
Cost data consist of dollar amounts spent on countermeasure programs, together with the costs of fatalities, injuries, and property damage. NHTSA, the National Safety Council, and other national and state agencies have published cost data for use by states. NHTSA has also made easy-to-use cost modeling software available. In addition, specific local costs can be accumulated through injury surveillance systems or other means of collecting treatment costs and outcomes.

Section 1-G Questions

The following questions are intended to determine whether the state maintains other types of information as described above.

1. Does the state have data from any of the supporting components listed above: GIS data, Criminal Justice data, Injury Surveillance data, Insurance data, Safety program Evaluation data, program-specific data, and demographic data?

2. Does the state:

    a. Have an inventory of state and local sources for highway safety information?
    b. Produce performance level data as defined above?
    c. Make cost data available for safety program management purpose?
    d. Maintain and use demographic data in its analysis of crash data?

Section 1-H: Data Integration

Advisory excerpt

Although various information sources may exist separately, these should be easily tied together to support analysis and decision making. This integration can eliminate the need to duplicate data, thus reducing data collection entry and storage costs. An example of tying together data for analysis is the link between the Crash and Roadway Information. Information on individual crashes are correlated to traffic and roadway features to support analysis of locations and traffic patterns and their contribution to the state's crash experience. To provide for data integration, each physical data file must include appropriate common data elements (also called linkage variables or unique identifiers). Information may then be passed (shared) between sources as long as one or more of the linkage data elements are common between the sources.

The following examples of linking variables are often used in state traffic records systems:

- *Crash number*
- *EMS run report number*
- *Location Coding (latitude/longitude coordinates, linear referencing system, GIS, GPS, milepoints)*
- *VIN or vehicle registration number*
- *Driver License number*
- *Social Security Number*
- *Citation Number*

Discussion of a Comprehensive Computerized Safety Recordkeeping System (CCSRS), related file linkages, and advantages of this system is provided in the Transportation Research Board (TRB) publication, Introduction to Comprehensive Computerized Safety Recordkeeping Systems and in the TRB's Study Report of Methods To Improve the Application of State Traffic Records Systems. The NHTSA publication So You Want to Link Your State Data presents information on general advantages of linking data from several sources and describes the CODES project as a method of probabilistic linkage between information sources.

Section 1-H Questions

Integration of data between specific information sources will be addressed during the interviews to gather information for Sections 1 and 2, such as between roadway and crash files, EMS and crash files, etc. Documentation here should summarize the state's use of data integration in general with respect to:

1. Its application for analytical purposes; i.e., does the state have the capability to correlate data from multiple sources for analysis?

2. Its role in the systems planning and upgrade processes; i.e., does the state consider the value of data integration when designing or revising the various components of its traffic records system?

SECTION 3: USES OF A TRAFFIC RECORDS SYSTEM

The purpose of a state traffic records system is to provide information critical to the development of highway safety programs and policies. This section addresses how the state is using its traffic records system in support of the wide range of activities dependent on the various components of a traffic records system, both individually and collectively. Some of the information can be obtained as interviewees respond to the questions in Sections 1 and 2 above, especially for operational purposes. Other types of uses covered here (planning, research, etc.) will be addressed to interviewees engaging in those activities for the state. In most cases these will probably be directed to the state's highway safety office. Consult the *Advisory* to determine the actual type of use to be assessed.

Section 3-A: Operational Purposes

Advisory excerpt

Across the spectrum of political subdivisions, public and private sector users, there are demands for information to perform their daily operations (e.g., the Department of Motor Vehicles' administration of the driver licensing function). In order for these entities to operate, it is imperative that these data be complete, current, and accessible at all times. Each component of the traffic records system should be designed to perform its primary operational functions efficiently and effectively.

Section 3-A Questions

1. How do the state's various enforcement jurisdictions view the collection of crash data; e.g., statutory requirements, highway safety applications, insurance company requirements, etc.?

2. How do the state's various enforcement jurisdictions use the crash file?

3. Do agencies use the "official" crash file or a locally-maintained one? What steps can be implemented that would improve the efficient operation and use of the crash file throughout all jurisdictions?

4. How do the state's various enforcement jurisdictions use citation data? (a) Are they identifying at risk demographic groups? (b) Is appropriate enforcement applied to high incident locations? (c) Are resources applied for crash reduction or revenue gathering?

5. Do they use the "official" citation data or locally-maintained data to identify the location of citations written? What steps can be implemented that would improve the efficient operation and use of the state citation file throughout all jurisdictions?

6. How does the state highway/transportation department use its various files?
   (a) traffic volume?
   (b) roadway characteristics?
   (c) traffic control?
   (d) railroad crossing inventory?
   (e) structures inventory?
   (f) other roadway-related inventories?

7. Does the state highway/transportation agency use the official state crash file or create one which they separately maintained?

8. How do private companies (e.g., insurance companies, employers) obtain crash, driver, and vehicle records? Do they pay for them? Are data also available to other state agencies? Do other state agencies pay for them?

9. How does the state identify roadway locations? Is there a single location reference method in use for all roadways, both state and local?

10. How are high crash locations determined? Can work zone-related crashes be identified and extracted?

11. How do the state's various jurisdictions use the driver's file? How well are the state's driver licensing and control functions supported by the driver file and the activities which provide input to it? Does the state use the driver file to compare crash data to ensure proper demographic targeting? What steps can be implemented that would improve the efficient operation and use of the driver file?

12. How do the state's various jurisdictions use the vehicle file? How well are the state's vehicle registration and titling functions supported by the vehicle file and the activities which provide input to it? What steps can be implemented that would improve the efficient operation and use of the vehicle file?

13. How do the state's various jurisdictions use the Injury Surveillance System? What steps can be implemented to improve the efficient operation and use of the ISS?

Section 3-B: Research and Program Development

Advisory excerpt

The expectation that the highway and traffic safety communities are making data-driven

planning decisions necessitates identification of trends and baseline measures. In order to identify safety problems and trends, the traffic records system should provide comparable data over time that can be easily linked and analyzed. This data should be made available to a wide range of users (e.g., State Traffic Safety Offices for development of the safety plan, local police agencies for identification of enforcement zones, etc.).

Section 3-B Questions

1. Are data from traffic records system used in the highway safety planning process? If so, what types and how?

2. What performance measures have been developed and from which sources of data? How have the performance measures been used?

3. What state and local agencies use highway safety data to identify problems and develop safety programs? How is this information used?

4. What research capacity and technical expertise exists in the highway safety program and other agencies? Have colleges, universities and other researchers been involved in safety analysis, problem identification, and countermeasure development?

5. Is there a department or group that coordinates R&D activities?

6. Are highway safety data available via the Internet or other on-line technologies?

7. Are standard or ad hoc reports generated to identify trends and provide baseline measures for program development and evaluation?

8. What are the users perceptions of the adequacy of highway safety data for research and planning purpose?

9. Are any improvements recommended?

Section 3-C: Program Management and Evaluation

Advisory excerpt

Fiscal limitations make it imperative that existing resources (time, staff, and dollars) be used efficiently. The safety programs at all levels should be accountable for demonstrating the impact of their countermeasures. This places demands on the traffic records system for information to monitor progress and evaluate impacts of countermeasure programs (e.g., monitoring of

construction zone crashes during a project, changes in alcohol-related injuries as a result of an enforcement project).

Section 3-C Questions

1. Are crash data used to evaluate highway safety projects and countermeasures? If so, how and by whom? Have colleges, universities and other researchers been involved in the evaluation of highway safety programs?

2. Are safety programs routinely evaluated? Who is responsible for monitoring and evaluation?

3. Are the data provided by the traffic records system timely and sufficient to monitor and evaluate programs and countermeasures?

4. Are output reports routinely provided for highway safety programs and projects?

5. Are highway safety data accessible at the local level or program level for program management and evaluation?

6. Are any improvements recommended?

Section 3-D: Private Sector and Public Requests

Advisory excerpt

The traffic records system, through a combination of information sources, technical staff, and public records access policies, should be capable of producing scheduled and ad-hoc reports. The media, advocacy groups, safety organizations, the general public, and internal (state and local) users have demands for regular reporting and for unforeseen, ad-hoc reports or access to data extracts. The state highway safety office should provide a periodic report to the public on the status of highway safety within the state. There should be a mechanism in place for establishing what data should be available to public and private sector users, within the laws protecting individual privacy and proprietary information.

Section 3-D Questions

1. How are requests for information and data handled and by whom? Is there a central point of contact for highway safety information? Is technical assistance/ training provided?

2. What reports are made available on a regular basis?

a) crash reports?
b) location analysis?
c) demographics?
d) economic loss?

3. Are ad-hoc reports provided?

4. Are there requests for information which cannot be provided? If so, is there a method to correct this deficiency?

5. Are file extracts made available in response to public requests? in what format? What restrictions are placed on them?

6. How are decisions made regarding the release and dissemination of data and reports to the public and private sectors?

Section 3-E: Policy Development

Advisory excerpt

In the absence of timely, accurate, and accessible information, uninformed decision-making can and will take place. The traffic records system should be capable of supporting highway and traffic safety policy decisions. Traffic records systems should also be capable of promptly responding to legislative requests with reliable data.

Section 3-E Questions

1. Are highway and safety policy and priority setting decisions based on traffic records systems data?

2. Is the traffic records system capable of promptly responding to legislative requests with reliable data? Has the state used traffic records data to evaluate the impact of legislative initiatives?

3. Which department or agency is primarily responsible for responding to legislative requests for highway safety information?

4. Are standard output reports, trend, or baseline data routinely supplied to policy makers? How are such reports used to form policy?

SECTION 4: MANAGEMENT INITIATIVES

This section addresses the extent to which a systematic process is in place to assure that all opportunities for improving highway safety are identified, considered, and implemented as appropriate. Consult the definitions of these categories in the *Advisory* to determine the most appropriate source for the information. In most cases these questions will be directed to the state's highway safety office.

Section 4-A: Coordination

Advisory excerpt

There should be a statewide traffic records coordinating committee (STRCC) with representation of the interests from all levels of public and private sector traffic safety stakeholders, as well as the wide range of disciplines that have need for traffic safety information. This committee should be formed within state policy and legal guidelines and should be institutionalized and empowered with the responsibility (through formal agreements) to recommend policy on traffic records. The state highway safety office should coordinate the committee's activities and provide logistical support. The STRCC should be responsible for adopting requirements for file structure and data integration, assessing capabilities and resources, establishing goals for improving the traffic records system, evaluating the system, developing cooperation and support from stakeholders, and ensuring that high quality and timely data will be available for all users.

Section 4-A Questions

1. Is there a statewide traffic records coordinating committee? Is there a working group and an executive/policy oversight group?

2. What is the mandate for the STRCC?

3. How often do they meet?

4. How long have they been in existence?

5. What is the representation on the committee?

6. Is there any coordination with other committees; e.g., those dealing with medical-related data issues?

7. What legal and policy restrictions apply to the formation of a committee with representation from other public and private groups; e.g., local government agencies, private sector vendors?

Section 4-B: Integrated Safety Planning Process

Advisory excerpt

It has been demonstrated that through the cooperation of the broad range of highway and traffic safety stakeholders, the most efficient and effective highway and traffic safety programs are developed. There should be within the state an ongoing, integrated safety planning process. By incorporating the viewpoints and interests of the widest possible breadth of users, the traffic records system will be able to most efficiently support identification of needs and responding to those needs. There should be a strong link between the traffic records coordinating committee and this Integrated safety planning process.

Section 4-B Questions

1. Does the state have an integrated safety planning process?

2. Is there a committee that directs that effort and what is its mandate? Is it formalized?

3. What is the relationship between that committee and the traffic records coordinating committee? What is the relationship between that committee and safe community groups?

4. How often does the committee meet?

5. How long has it been in existence?

6. What is the membership on the committee? To what extent is the membership and degree of involvement representative of the traffic and highway safety community?

7. What safety issues have been addressed by this group? What traffic records issues have been addressed?

4-C. Strategic Planning

Advisory excerpt

The traffic records system should be operated in a fashion that supports the traffic safety planning process. It should be driven by a Strategic Plan for Traffic Records Improvements which helps state and local data owners support the overall safety program needs within the state. This strategic plan should address such issues as:

- *The state should have in place an effort to continuously review and assess the application of new technology in all phases of its data operations: collection, processing retrieval and analysis. The strategic plan should address the adoption and integration of new technology as such change is feasible and desirable in improving the traffic records system,*

- *Promotion of local data systems that are responsive to the needs of local stakeholders,*

- *Identification and promotion of integration among state and local data systems to eliminate duplication of data, and to help assure current, reliable data,*

- *Data integration to provide linked data between components of the traffic records system (e.g., CODES),*

- *Coordination of federal systems (e.g., FARS) with the state records systems,*

- *Recognition and incorporation, where feasible, uniform data elements and definitions and design standards in accordance with national standards and guidelines (e.g., MMUCC, ANSI-D20-1998, ANSI-D16.1, NGA, EMS Data Dictionary, others),*

- *Changing state and federal requirements,*

- *The capture of program baseline, performance and evaluation data in response to changing safety program initiatives, and*

- *Establishment and updating of countermeasure impacts (e.g., crash reduction factors used in project selection and evaluation).*

The strategic plan should be endorsed by and continually updated through the activities of the statewide traffic records coordinating committee.

Section 4-C Questions

1. Does there exist a strategic plan for improving the traffic records system?

2. What components of the system does the strategic plan cover?

3. What state or local agencies does it address?

4. Does the strategic plan address data reporting standards?

5. Does it provide a work plan for implementation? What funding and resources are available?

6. Who is responsible for the strategic plan? What is the role of the statewide traffic records coordinating committee in the strategic planning process?

7. When was the strategic plan developed?

8. When was it last revised? Is there a mechanism for updating the plan?

9. Does the strategic plan address the identification and adoption of new technology?

10. Does the plan address implementation of national standards and guidelines (e.g., MMUCC)?

11. Does the plan identify and promote the integration of state and local data systems?

12. What were the original recommendations and what is the status of implementation?

13. Does the plan acknowledge the existence of local systems and promote their use and improvement?

14. To what extent has the plan been endorsed by stakeholder agencies, owners of the data systems, and others?

15. To what extent does the plan incorporate baseline performance measures?

4-D. Training and Staff Capabilities

Advisory excerpt

Throughout the data gathering, interpretation, and dissemination process, there is a need for training and technical support. A training needs analysis should be conducted for those highway safety professionals involved in program development, management and evaluation. Training should be provided to fulfill the needs identified in this analysis. There should also be an on-going outreach program for users of traffic safety program information to assure that all users are aware of what is available and how to use the information to fulfill their needs.

Section 4-D Questions

1. Does there exist a training needs assessment for the state and local agencies?

2. What technical and analytic assistance is in place for state and local agency personnel?

3. Is there a mechanism in place to secure analytic support (through contractors, or elsewhere) for state and local personnel? Have NHTSA data analysis and support contractor resources been utilized?

4. What training has been provided in the past 2 years?

5. Is there a training plan and delivery mechanism?

6. What mechanisms exist for making the traffic safety community aware of the available data and analytic resources?

7. What are the available data and analytic resources to support the traffic safety community?

APPENDIX A
OUTLINE OF ASSESSMENT REPORT

The following should be used as a preface for the report:

INTRODUCTION

Each state, in cooperation with its political subdivisions, should establish and implement a complete traffic records program. The statewide program should include, or provide for, information for the entire state. A complete traffic records program is necessary for planning (problem identification), operational management or control, and evaluation of a state's highway safety activities. This type of program is basic to the implementation of all highway safety countermeasures and is the key ingredient to their effective and efficient management.

As stated in the *National Agenda for the Improvement of Highway Safety Information Systems*, a product of the National Safety Council's Traffic Records Committee:

> "Highway safety information systems provide the information which is critical to the development of policies and programs that maintain the safety and the operation of the nation's roadway transportation network."

A traffic records system is generally defined as a virtual system of independent real systems which collectively form the information base for the management of the highway and traffic safety activities of a state and its local subdivisions.

ASSESSMENT BACKGROUND

The Traffic Records Assessment is a technical assistance tool that NHTSA and FHWA offer to state offices of highway safety to allow management to review the state's traffic records program. NHTSA and FHWA have co-published a Highway Safety Program Advisory for Traffic Records which establishes criteria to guide state development and use of its highway safety information resources. The Traffic Records Assessment is a process for giving the state a snapshot of its status relative to that Advisory.

This Assessment Report documents the state's traffic records activities as compared to the provisions in the Advisory, notes the state's traffic records strengths and

accomplishments, and offers suggestions where improvements can be made.

METHODOLOGY

The assessment process follows a "peer" review team approach. Working with the NHTSA Regional Office, the FHWA Division Office, and the state's highway safety office, NHTSA and FHWA selected a team of individuals with demonstrated expertise in major highway safety program areas including law enforcement, engineering, driver and vehicle services, injury surveillance systems, and general traffic records development, management, and use. Credentials of the Assessment Team are listed in the Team Credentials section of this report. The state officials who were interviewed during this assessment are listed in the Acknowledgment section. Throughout the assessment, NHTSA and FHWA representatives served as observers.

REPORT CONTENTS

In this report, the text following the "*Advisory Excerpt*" heading was drawn directly from the Traffic Records Advisory document. The "*Advisory Excerpt*" portion is in italics to distinguish it from the "Findings and Recommendations" related to that section which immediately follows. The findings and recommendations represent the Assessment Team's understanding of (name of state)'s traffic records system and their suggestions for improvement. The findings are based entirely on the documents provided prior to and during the assessment, together with the information gathered through the face-to-face discussions with the listed (name of state) officials. Recommendations for improvements in (name of state)'s traffic records program are based on the Assessment Team's judgment relative to those findings as to needed improvements.

It is recognized that, based on resources and other program priorities, the recommended improvements would be considered for implementation through a strategic plan established by the (names of appropriate state agencies) in coordination with other affected state and local agencies.

The report should follow the outline in the Advisory and present the "*Advisory Excerpt*" followed by the "Findings and recommendations" for each section and subsection of the Advisory. Section 1-A would present the text from the Advisory related to Crash Information followed by a statement of the findings and the recommendations for improvements to crash information, Section 1-B would repeat for roadway information, etc.

APPENDIX B
GLOSSARY OF ACRONYMS

AAMVANet	American Association of Motor Vehicle Administrators Network
ANSI	American National Standards Institute
ANSI D16.1	Manual on Classification of Motor Vehicle Traffic Accidents
ANSI D20-1998	Data Element Dictionary for Traffic Record Systems
BAC	Blood Alcohol Concentration
CCSRS	Comprehensive Computerized Safety Recordkeeping System
CDC	Center for Disease Control
CDLIS	Commercial Driver License Information System
CDPD	Cellular Digital Packet Data
CODES	Critical Outcome Data Evaluation System
DUI	Driving Under the Influence
ED	Emergency Department
EMS	Emergency Medical Services
FARS	Fatality Analysis and Reporting System
FHWA	Federal Highway Administration
GIS	Geographic Information System
GPS	Global Positioning System
ICD-9-CM	International Classification of Diseases, Volume 9, Clinical Modification
ISS	Injury Surveillance Systems
MMUCC	Model Minimum Uniform Crash Criteria
NAGHSR	National Association of Governors' Highway Safety Representatives
NDR	National Driver Register
NGA	National Governors' Association
NHS	National Highway System

NHTSA	National Highway Traffic Safety Administration
NSC	National Safety Council
PC	Personal Computer
R&D	Research & Development
RF	Radio Frequency
SMS	Safety Management System
STRCC	Statewide Traffic Records Coordinating Committee
TEA-21	Transportation Equity Act for the 21st Century
TRB	Transportation Research Board
VIN	Vehicle Identification Number
VMT	Vehicle Miles Traveled